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ABSTRACT

A study was conducted to explore how second-grade children's memory for film characters' statements varies as a function of (1) group composition (the proportion of boys and girls in each film condition); (2) congruence level of film characters (incongruent and congruent sex-typed statements); and (3) subjects' own sex-role orientations (masculine, feminine, androgynous, undifferentiated). Subjects were 114 Caucasian middle class children, 57 girls and 57 boys, ranging approximately from age 7 to 9. Subjects, sampled from 10 second-grade classrooms, participated in two experimental sessions spaced 1 week apart. During the first session, they were shown a 2-minute videotaped film of a group of six children planning a party. After viewing, subjects were asked free-recall and memory-probe questions about four of the six children they saw in the film. During the second experimental session, subjects rated themselves on a modified version of the Children's Personal Attributes Questionnaire. Preliminary results indicated that sex-role orientation influences memory for film characters as a function of their congruence level. Also, differences in group composition significantly influenced memory; as set size within a group increases (i.e. the number of males or females within the group) memory significantly decreases. (RH)

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The Effects of Group Composition, Information Content, and Sex-Role Orientation on Children's Memory

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The major goal of the present study was to understand how sex stereotyping of both self and other functions as an organizing device for incoming information and influences children's memory for one another. A secondary goal was to understand how group composition, the proportion of males and females in a small group discussion interacts with stereotyping, and further influences how information is processed and remembered by children.

Stereotypes are a shared knowledge base between and among children. Children are able to process and remember more easily information that is congruent with their stereotypes in conditions where information presented is numerous and complex(Hastie, 1981), because of the familiarity of the information to their existing mental constructs(Lieben and Signorella, 1980; Mandler, 1981). In conditions where information presented is numerous and complex, children have difficulty processing incongruent information, conversely, because they cannot accomodate the incongruent information while simultaneously processing the complex information (Hastie, 1981). When information presented is relatively simple in context and thus easily processed,however, incongruent information, has more perceptual salience and may be remembered better than congruent information(Hastie, 1981; Jennings, 1975).

In the present study a child's sex role orientation, how masculine, feminine, androgynous, or undifferentiated they perceive themselves to be, may influence their memory since these self

perceptions, it is hypothesized, are indicators of children's existing mental constructs concerning gender and gender identity. Consequently, these sex role orientations may influence how congruent or incongruent information is perceived to be.

Group composition in the present study is a variable that manipulates context complexity. For example, minority group members, comprise a small set size category, with only one male or female in a group of six children, and represents a less difficult unit of information to process than, for example, majority group members, a large set size category, where subjects must process information about six individuals of the same sex, and hense same category of "social objects".

Variations in group composition offer an additional level of incongruence or congruence that is external to the individuals in question, but may influence how individuals are perceived and remembered by others(eg. Taylor et al., 1979). Group composition in the present study places children making incongruent and congruent sex typed statements into a social context that may, depending on the particular homogeneity or heterogeneity of the group in question, influence how congruent or incongruent a particular child's sex-typed statement is perceived to be. Therefore the social context may enhance or detract from the perceptual salience and hense memory of a particular child's statement.

Subjects in the present study were 114 Caucasian, middle-class children, 57 girls and 57 boys. They ranged in age from seven years one month to nine years four months, with a mean age of seven years eight months. Subjects were sampled from ten second grade classrooms in Torrance, California, from February

through May of 1983. Each subject participated in two experimental sessions spaced one week apart. During the first session they were shown a two minute videotaped film of a group of six children planning a party. After subjects viewed the film through twice, they were asked free recall and memory probe questions about four of the six children they saw in the film.

There were a total of six two minute films corresponding to the six experimental conditions, shown to subjects. Subjects were randomly assigned to one of the six conditions and counterbalanced across all ten classrooms. During the second experimental session subjects rated themselves on a personality questionnaire, a modified version of the Children's Personal Attributes Questionnaire (Hall and Halberstadt, 1980), designed to uncover children's own sex role orientations: how masculine, feminine, androgynous or undifferentiated they perceive themselves to be.

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insert Table 1 here

Twelve Caucasian, middle-class fifth graders, seven boys and six girls, were used in the films as film characters. Each of the films was made with one narrator and six discussants. Four of the group discussants had speaking roles and gave suggestions for the party. Two of the discussants had silent roles and were included to enhance subjects' awareness of group composition variables. Each of the films was shot in ten identical segments and then edited together. This was to control for variables in film composition. Each segment was shot about six times and the best "take" was used in the editing.

The first segment of each film involved a group walk-on. The six film characters were filmed chatting and walking into a room and then sitting down on six chairs arranged in a semi-circle. The second segment of each film involved a narrator walk-on. One male child was chosen to narrate the setting of the films. In film segment 3, he read his narration from cue cards as follows.

> Robbie and Janine are moving away to a new town. Everyone in their class at school will miss them very much. Six of their good friends ask their teacher, Mr. Duncan, if they can give them a going away party on Friday, their last day at school. Mr. Duncan thinks that is a good idea and asks the children to plan a party.

In film segment 4 the narrator walks off and the camera moves in for a close shot of the first child to offer suggestions. The first four segments of the film enable subjects to cue into the task, absorb the setting, and focus on the group composition. Segments 5 through 8 involve the speaking children and focused on the content of children's statements. Statements were either gender congruent or gender incongruent depending on the film condition. For example, a incongruent male statement made in three of the six films went as follows:

> I love to bake cakes. I'll make a nice chocolate cake, Thursday, after ballet practice and bring it for the party on Friday afternoon. I'm really going to miss the twins, Robbie and Janine.

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insert Table 2 here

As we can see from Table 2, the minority group film target child in film conditions one through four always spoke first (segment 5) in segments five through eight. The majority child

in film conditions one through four(segment # 6) always spoke second. In film conditions 5 and 6 the incongruent homogeneous majority child spoke first, the congruent child second(segments 5 and 6, respectively). Children placed in positions one and two of the seating arrangement were targets who formed the data base of the present study, and were placed in the same positions in all six films in order to control for position memory effects. Children 3 and 4 speaking in segments 7 and 8, respectively, were congruent majority discussants.

Within the six film conditions there were four independent variables:(1) group composition; (2) congruence level; (3) sex of film target; and (4) sex of subject. There were four components to the group composition variable. Groups were either homogeneous, all male or all female, or heterogeneous, both males and females present. Within the heterogeneous groups there were one minority group member, the only male or female in the group, and five majority group members, who were all males or all females depending on the film condition. There were a total of four target children, two males two females, two incongruent two congruent, who were counterbalanced across the six film conditions.

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insert table 3 here

Four poster boards with four black and white photographs of the four speaking children in the films were made. Target child #1 appeared in the upper left portion of the board. Target child #2 appeared in the upper right portion. Non-target child #3 and #4. respectively, appeared in the lower left and right portions.

Immediately following film viewing each subject was individually presented with one of the four poster boards, and free recall information was obtained for each of the four film characters depicted on the board, beginning with target child #1 and ending with nontarget #4. The memory probe questions were always asked after the free recall questions so that answers to the memory probe would not influence free recall. Each subject was asked four randomized memory probe questions. Subjects were required to point to the picture of the child on the poster board who they thought made each of the suggestions for the party probed for in each question.

It was hypothesized, in the present study, that certain individuals would be more memorable because they formed a distinct class and therefore reduced the number of similar alternatives. In the present study this form of information processing can occur in two ways:(a) gender forms one classification system; and (b) content incongruity forms another. Therefore on one hand we are interested in whether variables a or b or both effect memory, either recognition or probed recall. There is also, on the other hand, the possibility of an interaction between observer and context, such that: individuals may attend to perceived differences from themselves more and thus remember them due to an enhancement of contrast effect.

The above two hypotheses were operationalized asking the following two research questions. First, how does group composition and level of congruence of film targets influence the proportion of correct and incorrect script content recalled by subjects? Second, how does a subject's sex role orientation in interaction with group

composition and/or congruence influence memory?

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insert Tables 4 & 5 here

The terms on the far left column of Table 5 refer to the kind of memory data analyzed. The first measure, referrs to the memory probe questions and uncovers probed recognition memory. The second measure referrs to subjects' free recall responses. The amount of free recall was coded, here, in an all or none manner, such that, a score of 0 indicated incorrect content recalled for a particular film target, while a score of 1 indicated correct content. The third coding method, median-split free recall, looked at differences in how much free recall data was generated by subjects. A score of 0 indicated low content correct, that is, content scores below the median. A score of 1 indicated high content correct scores, above the median. Finally, scripts were divided into semantic story categories of goal, subgoal, activity, and internal response. Since previous research indicates goal statements are most fequently reported by subjects in free recall conditions, suggesting they structure their recall answers in a semantic way, this category was also seen as a more reliable and sensitive measure(Stein, N. 1983, personal communication).

The memory probe question data is straightforward in its coding and accurate recording is based on an objective criteria of forced multiple choice response approach. 100% inter-rater reliability was achieved on a random sample of 21% of the total subject population of memory probe responses. Free recall data was scored in a more subjective way in which some of the responses may or may not "fit" the coding categories. An example of coding

categories for all free recall data is presented in Table 4. On a random sample of 27% of free recall data, an inter-rater reliability of 89.5% was achieved. Reliability for semantic content free recall coding was performed on 9% of the total data. An inter-rater reliability of 95% was achieved.

Across all four memory measures, in Table 5(a), when X^2 analyses were performed, measuring the effects of group composition on the proportion of correct remembering across all six film conditions, we see a large set size or group composition effect. As Table 5(b) indicates memory is significantly better for minority targets(small set size) than for majority targets(larger set size). With a set size increase of only 1 between majority groups 2 and 3 for median split and goal measures, more "sensitive" measures of recall, in Table 5(c), results indicate significant differences as a function of group composition. We can concluce on the basis of these results, that, differences in group composition significantly influence subjects' memory for film targets, such that, as set size, the number of males and females within each small group increases, memory significantly decreases.

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insert Table 6 here

As we can see in Table 6 there were no significant differences in subjects' memory as a function of congruence level when all conditions were combined(a) or when each of the three group compositions were considered separately(b-d). As we will see in Table 7, however, there seems to be an interaction between level of congruence and set size that "washes out" within group congruence comparisons. Also as we will see later on in Tables 9-10

there are sex role orientation and memory differences that cancel out within group comparisons as well.

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insert Table 7 here

Table 7 looks at group composition comparisons of subjects' memory holding congruence level constant. In 7(a) comparisons are made of conditional probabilities of correct remembering given a subject viewing incongruent targets for heterogeneous groups 1 (minority targets) and 2(majority targets). For all measures subjects remembered incongruent minority targets significantly better than incongruent majority targets. No significant differences between subjects' memory for congruent heterogeneous minority and majority film targets, conversely, were found(7(b). Consequently a change in set size from 1 to 3 significantly influences subjects' recall for <u>incongruent</u> targets but not for congruent. This supports the notion that in situations where set size is small incongruence is more perceptually salient and thus remembered better.

Parts (c) and (d) of Table 7 looks at comparisons of subjects' memory for incongruent and congruent targets, respectively, across heterogeneous and homogeneous <u>majority</u> groups. No significant differences are found in how well incongruent targets are remembered, where set size increases by only 1. However, for median split and semantic goal data, <u>congruent</u> targets are remembered significantly better in group 2(large set size) than in group 3(larger set size). This finding supports the notion that when information is numerous and complex, congruent information is more easily processed and remembered.

A series of X^2 analyses were performed to explore the possibility of sex of target, sex of subject effects on memory.

No significant differences were found, for either main effects or interactions.

In order to further explore the possibility of an interaction between observer and context in memory effects, subjects were broken down into four sex role orientation categories. Androgynous(A) subjects scored high on both gender congruent and incongruent scales of the personal attributes questionnaire. Stereotyped(S) subjects, both males and females, scored high on gender congruent scales and low on gender incongruent scales. Reverse-typed(R) subjects scored low on gender congruent and high on gender incongruent scales. Undifferentiated(U) subjects scored low on both gender congruent and incongruent scales.

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insert Table 8 here

Table 8 presents the conditional probabilities of correct remembering given subjects' having a sex role orientation of (A), (S), (R), or (U) for all groups combined(Part A), a nd for each of the three group compositions(parts B and C). Table 8(a) indicates that for overall effects across all film conditions, sex role orientation does not influence memory. For heterogeneous minority film targets(8(b), there are also no significant memory effects as a function of sex role orientation. This is not surprising since heterogeneous minority targets were the most easily remembered and information presented(small set size) was not numerous and consequently easily processed.

For heterogeneous(C) and Homogeneous(D) majority group film targets we find for semantic goal(C) and median split(D) measures, respectively, significant memory effects as a function

of sex role orientation were obtained.

In 8(c) the greatest differences in memory across all four measures are between stereotyped and reversed subjects, such that, stereotyped subjects have greater memory than reversed for heterogeneous majority film targets. For heterogeneous minority targets in 8(b), although no significant effects were found across all sex role orientations, stereotyped subjects seem to consistently have greater memory than reversed-typed subjects. Consequently heterogeneous(minority and majority) stereotyped subjects in 8(b and c) were combined and memory was compared in table 9(to be discussed shortly) to the similarly combined memory scores of heterogeneous(minority and majority) reversed-typed subjects(8 b & c). Conceptually, subjects having stereotyped and reversetyped sex role orientations are the most dissimilar in their personal gender attributions, so it is not suprising that differences in memory would be found between these two groups.

There was no consistent pattern in androgynous and undifferentiated subjects' within group memory comparisons for heterogeneous film targets(8 b & c). Androgynous subjects, scoring high on both stereotyped and reversetyped(congruent and incongruent) personal attributions, and the undifferentiated subjects, scoring low on both stereotyped and reversed items, are not that dissimilar in their gender orientations. Both have equal proportions of gender congruent and incongruent personal attributes. They differ not in kind of attrubutes as do stereotyped and reverse-typed subjects, but in the degree of joint congruent or incongruent attributes. That is, androgynous subjects have a lot of both, while stereotyped subjects have little of both.

There are differences in 8(d) between stereotyped and reversed-typed subjects' memory for homogeneous majority film targets. These differences, however, are the converse of those found for heterogeneous film targets in 8(b & c). For homogeneous film targets reverse-typed subjects seem to have greater memory than stereotyped subjects. In 8(d) androgynous and undifferentiated subjects seem to differ in their memory with androgynous subjects having conditional probabilities like those of the stereotyped subjects. Both these groups seem to have less memory than undifferentiated and stereotyped subjects. Therefore in Table 9 presented below for homogeneous film targets the sex role orientation categories of androgynous and stereotyped were combined and compared to sex role orientation categories of reversed and undifferentiated. This was done in part to increase the sample size.

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insert Table 9 here

In table 9(a) we have X^2 comparisons of the conditional probabilities of correct remembering given stereotyped sex role orientation versus reversed sexrole orientation for heterogeneous film conditions comprising both minority and majority film targets. We find for all memory measures that stereotyped subjects have significantly greater memory for heterogeneous targets than reverse subjects. In table 9(b) androgynous and stereotyped subjects' memory has been compared for homogeneous(same sex) majority film targets with reversed and undifferentiated subjects memory. Results indicate that androgynous and stereotyped subjects have significantly less memory for targets than do reversed and undifferentiated

subjects. Conceptually, androgynous and stereotyped subjects are similar in that they both score high in gender congruent sex role orientations. Conversely, reverse-typed and undifferentiated subjects are similar in that they both score low in gender congruent sex role orientations.

Results presented in 9(c) indicate that androgynous and stereotyped subjects, significantly decrease in memory as set size and complexity increase. There are no significant differences in memory(d) for reverse-typed and reverse-typed plus undifferentiated subjects, as a function of group composition. This suggests that the big changes in memory and processing difficulties accounting for them are due to changes in the androgynous and stereotyped subjects' memory abilities, which are due to observer-context interactions. These observer and context effects can be more clearly understood as we move to our final table, table 10.

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insert table 10 here

For heterogeneous film conditions stereotyped subjects remember incongruent film targets significantly better than reverse-typed subjects; while there are no differences in how stereotyped and reverse-typed subjects remember congruent film targets. Incongruent targets are more perceptually salient here to stereotyped subjects due to an enhancement of contrast effect and hense are remembered better. Incongruent targets are not as perceptually salient to reverse-typed subjects in the mixed sex groups as they are to stereotyped subjects. Their statements are not that incongruent with reverse-typed subjects personal gender attributions.

For homogeneous(same sex) film conditions again there are

no significant differences between androgynous plus stereotyped subjects memory for congruent film targets and reverse-typed plus undifferentiated subjects' memory for them. However, when set size has increased and information has become more complex in the homogeneous condition we find that stereotyped and androgynous subjects now remember incongruent film targets significantly less than reverse-typed and undifferentiated subjects remember them. Incongruent homogeneous film targets are doubly incongruent. They are incongruent in their gender statements and also are incongruent or deviant from the other group members' statements. This double dose of incongruence, here, adds an additional level of context complexity that hinders stereotyped and androgynous subjects' in their attempts to accomodate the incoming information to their mental constructs. In the heterogeneous conditions incongruent targets made statements that were incongruent for members of their sex, but were not incongruent for other opposite sex film targets. Thus they were in a sense conforming to opposite sex statements while not conforming to expectations for their own gender. In the homogeneous groups targets were incongruent for their gender and also not conforming in statement to other group members.

The results of the present study suggest that we perceive and remember things on the basis of both external(congruence level, group composition variables) and internal(sex role orientations) factors. Our own orientations and experiences influence in both positive and negative ways how we process information. It can help us in some circumstances and hinder in others. But it is important to recognize how our perceptions influence our thought processes especially when these perceptions are of information within a

social context such as sex stereotypes and gender orientations. We use our stereotypes of others and of ourselves in our attempts at classifying the world and in our attempts at assimilating and accomodating our experiences. Knowledge of how we can be governed by these external and internal factors is important for understanding how "subjective" and context dependent external "reality" can often be. The fact that children as young as 7 are already bound by context in memory suggests that these perceptual processes are either acquired early or prewired or both, and represent attempts of approaching and organizing life experience at least in the cognitive realm.

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Table 1

Film Composition

film segments edited together

1.	2.	3.	4.	5.
Group walk-on. Same children in conditions 1 & 3, 2 & 4	Narrator walk-on. Same child in all six conditions	Narration same child same "take" all six film conditions.	Narrator walk-off close up to target child #1 (seating arrange-ment)	Child #1 speaks same child same "take" across 2 conditions counter-balanced.
6	7.	8.	9.	10.
Child #2 (target) speaks	Child # 3 speaks	Child #4 speaks	group shot	group walk-off

seating arrangement of film characters

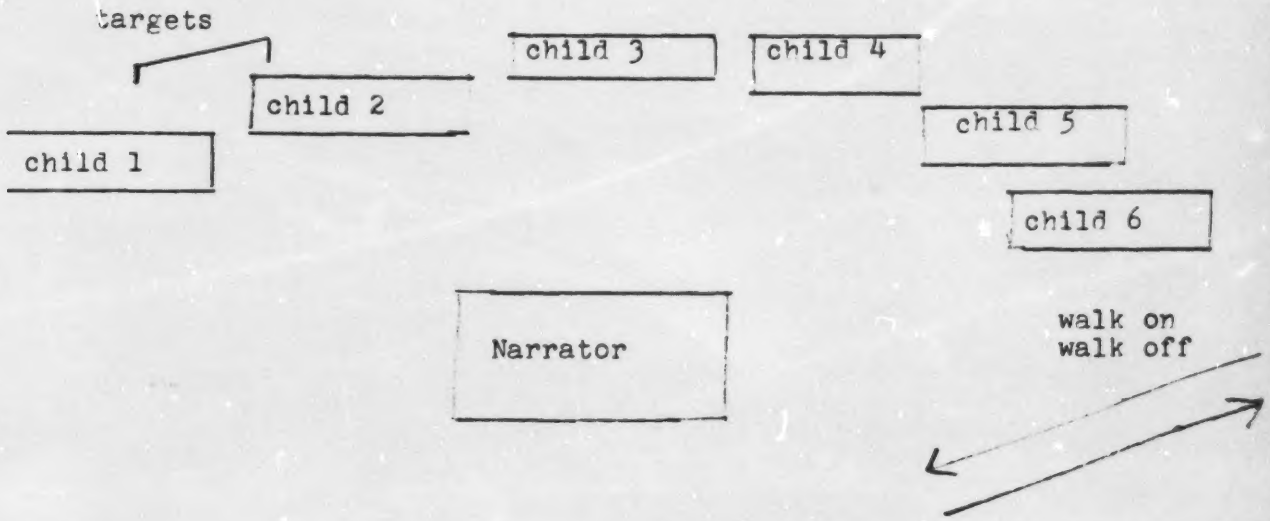


Table 2

The experimental conditions designed in the films

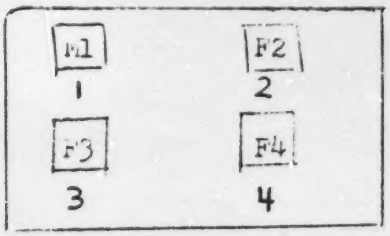
	Children as they appear in the seating arrangement						
	1	2	3	4	5	6	
conditions	targets				silent		Targets 1 & 2
1. hetero	M1*	F2	F3	F4	F5	F6	Inc. Min.-Cong. Maj.
2. hetero	F1*	M2	M3	M4	M5	M6	Inc. Min.-Cong. Maj.
3. hetero	M1	F2*	F3	F4	F5	F6	Cong. Min.-Inc. Maj.
4. hetero	F1	M2*	M3	M4	M5	M6	Cong. Min.-Inc. Maj.
5. homo	M1*	M2	M3	M4	M5	M6	Inc. Maj.- Cong. Maj.
6. homo	F1*	F2	F3	F4	F5	F6	Inc. Maj.- Cong. Maj.

* = incongruent targets

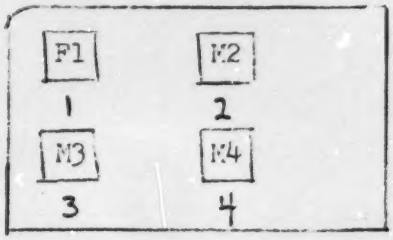
Table 3

Position of film characters on poster board for each condition for memory probe and free recall questions

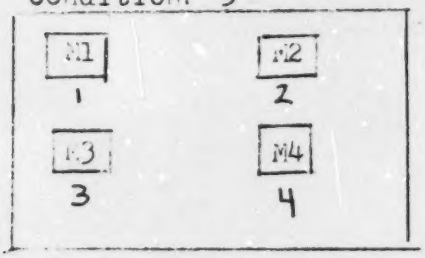
Conditions 1 & 3



Conditions 2 & 4



Condition 5



Condition 6

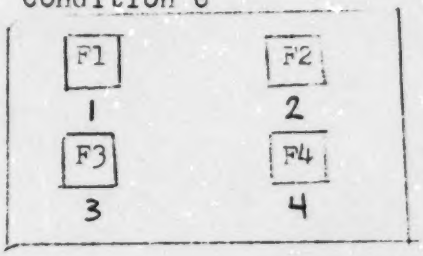


Table 4

Sample of content break-down key of script statements for free recall, median-split free recall, and goal coding systems

Incongruent male target(M1 or M2)

script statement

I love to bake cakes. I'll bake a nice chocolate cake, Thursday, after ballet practice and bring it for the party on Friday afternoon. I'm really going to miss the twins, Robbie and Janine.

1	2	3	4
content#	score	gist(key words underlined)	semantic story grammar category
1.	1	bake a cake	goal
2.	1	after practice	activity
3.	1	ballet practice	activity
4.	1	chocolate cake	subgoal
5.	1	bring a cake to the party	goal
6.	1	miss the twins	internal response
7.	1	he loves(likes)to bake cakes	internal response

Table 5

Summary Table of Effects for Group Composition/Set Size

A. Conditional probabilities of a correct response given membership in one of the three group compositions all six film conditions combined

measure	p(hit/Gp.1) set size 1	N	p(hit/Gp.2) set size 3	N	p(hit/Gp.3) set size 4	N	$X^2(2)$	P
mem. probe	.90	59	.60	78	.49	74	25.3	.00001
free recall	.79	77	.55	78	.42	76	22.4	.00001
m-s free recall	.62	77	.37	78	.21	76	27.6	.00001
semantic: goal	.61	77	.41	78	.25	65	19.29	.0001

B. Conditional probabilities of a correct response given a target being a member of gp.1(hetero minority) or gp. 2(hetero majority)

measure	p(hit/gp.1) set size 1	N	p(hit/gp.2) set size 3	N	$X^2(1)$	P
mem. probe	.90	59	.60	78	15.09	.001
free recall	.80	78	.55	78	10.52	.005
m-s free recall	.63	78	.37	78	10.26	.005
semantic: goal	.62	77	.37	78	10.31	.005

C. Conditional probabilities of a correct response given a target being a member of pg.2(hetero majority) or gp. 3(homo majority)

measure	p(hit/gp.2) set size 3	N	p(hit/gp.3) set size 4	N	$X^2(1)$	P
mem. probe	.60	78	.46	76	3.18	.10
free recall	.55	78	.42	76	2.6	n.s.
m-s free recall	.37	78	.20	76	5.72	.05
semantic: goal	.37	78	.21	76	4.83	.05

D. Conditional probabilities of a correct response given a target being a member of gp.2(hetero minority) or gp.3(homo majority)

measure	p(hit/gp.1) set size 1	N	p(hit/gp.3) set size 4	N	$X^2(1)$	P
mem. probe	.90	59	.46	76	27.9	.00001
free recall	.80	78	.42	76	22.6	.00001
m-s free recall	.63	78	.20	76	29.5	.00001
semantic: goal	.61	77	.25	61	18.28	.0001

Table 6

Summary Table of Effects for Congruence as a main effect and Congruence holding group composition constant

A. Conditional probabilities of correct remembering given congruence level all six film conditions combined

measure	p(hit/congruent)	N	p(hit/incongruent)	N	$X^2(1)$	P
mem. probe	.60	97	.66	116	1.01	n.s.
free recall	.62	117	.57	115	.64	n.s.
m-s free recall	.40	116	.41	116	.04	n.s.
semantic: goal	.42	108	.45	108	.69	n.s.

B. Conditional probabilities of correct remembering given congruence level for minority targets(gp.1)

measure	p(hit/congruent)	N	p(hit/incongruent)	N	$X^2(1)$	P
mem. probe	.84	19	.93	40	.97	n.s.
free recall	.74	39	.85	39	1.27	n.s.
m-s free recall	.59	38	.68	40	.77	n.s.
semantic: goal	.54	37	.68	40	1.46	n.s.

C. Conditional probabilities of correct remembering given congruence level for hetero majority targets(gp.2)

measure	p(hit/congruent)	N	p(hit/incongruent)	N	$X^2(1)$	P
mem. probe	.625	40	.58	38	.11	n.s.
free recall	.59	39	.50	38	.63	n.s.
m-s free recall	.43	40	.32	38	1.67	n.s.
semantic: goal	.45	40	.37	38	.54	n.s.

D. Conditional probabilities of correct remembering given congruence level for homo majority targets(gp.3)

measure	p(hit/congruent)	N	p(hit/incongruent)	N	$X^2(1)$	P
mem. probe	.45	38	.47	38	.05	n.s.
free recall	.50	38	.34	38	1.94	n.s.
m-s free recall	.18	38	.21	38	.08	n.s.
semantic: goal	.23	31	.27	30	.12	n.s.

Table 7

Summary Table of effects: Group composition comparisons holding congruence level constant

A. Conditional probabilities of correct remembering given incongruent film targets in hetero minority group 1(set size 1) versus hetero majority group 2(set size 3)

measure	p(hit/inc. gp. 1)	N	p(hit/inc. gp.2)	N	$X^2(1)$	P
mem. probe	.93	40	.58	38	13.92	.001
free recall	.85	39	.50	38	10.50	.005
m-s free recall	.68	40	.32	38	10.06	.005
semantic:goal	.68	40	.37	38	7.42	.01

B. Conditional probabilities of correct remembering given congruent film targets in hetero minority group 1 versus hetero majority group 2.

measure	p(hit/cong.gp.1)	N	p(hit/cong.gp.2)	N	$X^2(1)$	P
mem. probe	.84	19	.63	40	2.87	.10
free recall	.74	39	.59	39	2.08	n.s.
m-s free recall	.59	38	.43	40	1.72	n.s.
semantic:goal	.54	37	.45	40	.63	n.s.

C. Conditional probabilities of correct remembering given incongruent film targets in hetero majority group 2(set size 3) versus homo majority group 3(set size 4)

measure	p(hit/inc.gp.2)	N	p(hit/inc. gp.3)	N	$X^2(1)$	P
mem. probe	.58	38	.47	38	.85	n.s.
free recall	.50	38	.34	38	1.95	n.s.
m-s free recall	.32	38	.21	38	1.09	n.s.
semantic:goal	.37	38	.27	30	.79	n.s.

D. Conditional probabilities of correct remembering given congruent film targets in hetero majority group 2 versus homo majority group 3.

measure	p(hit/cong.gp.2)	N	p(hit/cong.gp.3)	N	$X^2(1)$	P
mem. probe	.63	40	.45	38	2.53	n.s.
free recall	.59	39	.50	38	.63	n.s.
m-s free recall	.43	40	.18	38	5.33	.05
semantic:goal	.45	40	.23	31	4.02	.05

Table 8

Sex Role Orientation and Memory: Group Composition
Conditional probabilities of correct remembering given subjects having sex role orientations of Androgynous(A), Stereotyped(S) Reverse-typed(R), or Undifferentiated(U)

A. Overall effects across all six film conditions

measure	p(hit/A)	N	p(hit/S)	N	p(hit/R)	N	p(hit/U)	N	$X^2(3)$	P
mp	.61	77	.67	54	.57	28	.69	48	1.49	n.s.
fr	.56	84	.63	57	.56	34	.62	52	1.01	n.s.
ms-fr	.37	84	.44	57	.35	34	.46	52	1.79	n.s.
goal	.39	77	.53	53	.41	34	.42	52	2.63	n.s.

B. Heterogeneous minority groups(Group 1-Set size 1)

measure	p(hit/A)	N	p(hit/S)	N	p(hit/R)	N	p(hit/U)	N	$X^2(3)$	P
mp	.86	22	.88	16	.83	6	1.00	15	2.36	n.s.
fr	.76	29	.90	19	.83	12	.71	17	2.30	n.s.
ms-fr	.66	29	.68	19	.50	12	.59	17	1.29	n.s.
goal	.52	29	.74	19	.67	12	.59	17	2.53	n.s.

C. Heterogeneous majority groups(Group 2-Set size 3)

measure	p(hit/A)	N	p(hit/S)	N	p(hit/R)	N	p(hit/U)	N	$X^2(3)$	P
mp	.62	29	.70	20	.42	12	.59	17	2.59	n.s.
fr	.38	29	.70	20	.25	12	.59	17	6.29	.09
ms-fr	.35	29	.50	20	.17	12	.41	17	3.78	n.s.
goal	.38	29	.65	20	.17	12	.35	17	8.03	.045

D. Homogeneous majority groups(Group 3-Set size 4)

measure	p(hit/A)	N	p(hit/A)	N	p(hit/R)	N	p(hit/U)	N	$X^2(3)$	P
mp	.38	26	.45	18	.60	10	.50	16	1.50	n.s.
fr	.35	26	.28	18	.60	10	.56	18	4.77	n.s.
ms-fr	.08	26	.11	18	.40	10	.39	18	9.54	.03
goal	.21	19	.07	14	.40	10	.33	18	4.45	n.s.

Table 9

Sex Role Orientation and Memory: Heterogeneous vs. Homogeneous Groups.

A. Within group comparisons. Heterogeneous groups(1+2). Conditional probabilities of correct remembering given S or R subjects' sex role orientation.

measure	p(hit/S)	N	p(hit/R)	N	$X^2(1)$	P
mp	.78	36	.55	18	2.84	.10
fr	.79	39	.54	24	4.53	.05
ms-fr	.59	39	.33	24	3.91	.05
goal	.69	39	.42	24	4.81	.05

B. Within group comparisons. Homogeneous group(3). Conditional probabilities of correct remembering given A+S or R+U subjects' sex role orientation.

measure	p(hit/A+S)	N	p(hit/R+U)	N	$X^2(1)$	P
mp	.42	44	.55	26	2.78	.10
fr	.32	44	.58	28	4.52	.05
ms-fr	.10	44	.40	28	7.72	.01
goal	.14	33	.37	28	3.45	.10

C. Between group comparisons, controlling for sex role orientation. Conditional probabilities of correct remembering given S in heterogeneous groups versus S+A in homogeneous groups.

measure	p(hit/S/Hetero)	N	p(hit/S+A/Homo)	N	$X^2(1)$	P
mp	.78	36	.42	44	16.77	.0001
fr	.79	39	.32	44	18.92	.0001
ms-fr	.59	39	.10	44	20.96	.0001
goal	.69	39	.14	33	26.58	.0001

D. Between group comparisons, controlling for sex role orientation. Conditional probabilities of correct remembering given R in heterogeneous groups versus R+U in homogeneous groups.

measure	p(hit/R/Hetero)	N	p(hit/R+U/Homo)	N	$X^2(1)$	P
mp	.55	18	.55	26	.00	n.s.
fr	.54	24	.58	28	.05	n.s.
ms-fr	.33	24	.40	28	.20	n.s.
goal	.42	24	.37	28	.19	n.s.

Table 10

Sex role orientation and memory within congruence categories for same sex and mixed sex film conditions

A. For heterogeneous groups(mixed sex) and incongruent targets

measure	p(hit/S)	N	p(hit/R)	N	$X^2(1)$	P
mp	.74	19	.50	12	1.80	n.s.
fr	.84	19	.42	12	6.09	.025
ms-fr	.63	19	.25	12	4.29	.05
goal	.73	19	.33	12	4.75	.05

B. For heterogeneous groups and congruent targets

measure	p(hit/S)	N	p(hit/R)	N	$X^2(1)$	P
mp *	.82	17	.67	6	.51	n.s.
fr *	.75	20	.67	12	.26	n.s.
ms-fr	.55	20	.42	12	.53	n.s.
goal	.65	20	.50	12	.70	n.s.

* some cell frequencies were less than 5 in these measures

C. For homogeneous groups(same sex) and incongruent targets

measure	p(hit/A+S)	N	p(hit/R+U)	N	$X^2(1)$	P
mp	.46	22	.54	13	.32	n.s.
fr *	.18	22	.50	14	4.08	.05
ms-fr *	.05	22	.43	14	8.02	.005
goal *	.125	16	.43	14	3.52	.10

D. For homogeneous groups and congruent targets

measure	p(hit/A+S)	N	p(hit/R+U)	N	$X^2(1)$	P
mp	.36	22	.54	13	1.01	n.s.
fr	.46	22	.64	14	1.22	n.s.
ms-fr*	.14	22	.36	14	2.41	n.s.
goal*	.18	17	.29	14	.52	n.s.